REMARKS

This response is a full and complete response to the non-final Office Action mailed July 14, 2005. In the Office Action, the Examiner notes that claims 1-7, 9-16 and 18-30 are pending and rejected. By this response, Applicants have provided arguments refuting the Examiner's position; all claims remain unamended.

In view of the following discussion, Applicants submit that none of the claims now pending in the application are obvious under the provisions of 35 U.S.C. §103. Therefore, Applicants believe that this application is now in condition for allowance.

It is to be understood that Applicants, do not acquiesce to the Examiner's characterizations of the art of record or to Applicants' subject matter recited in the pending claims. Further, Applicants are not acquiescing to the Examiner's statements as to the applicability of the art of record to the pending claims by filing the instant Response.

Rejections Under 35 U.S.C. §103

Claims 1-5, 6-7, 9-14, 15-16, 18-20, 22-24 and 25-30

The Examiner has rejected claims 1-5, 6-7, 9-14, 15-16, 18-20, 22-24 and 25-30 under 35 U.S.C. §103(a) as being unpatentable over Roy (EP0926916A2, hereinafter "Roy"), further in view of Fukagawa (US 6188913 B1, hereinafter "Fukagawa"). Applicants respectfully traverse the rejection.

The test under 35 U.S.C. §103 is not whether an improvement or a use set forth in a patent would have been obvious or non-obvious; rather the test is whether the claimed invention, considered as a whole, would have been obvious. Jones v. Hardy, 110 USPQ 1021, 1024 (Fed. Cir. 1984) (emphasis added). Thus, it is impermissible to focus either on the "gist" or "core" of the invention, Bausch & Lomb, Inc. v. Barnes-Hind/Hydrocurve, Inc., 230 USPQ 416, 420 (Fed. Cir. 1986) (emphasis added). Moreover, the invention as a whole is not restricted to the specific subject matter claimed, but also embraces its properties and the problem it solves. In re Wright, 6 USPQ 2d 1959, 1961 (Fed. Cir. 1988) (emphasis added).

Roy and Fukagawa singly or in combination do not teach or suggest Applicants' invention as a whole. Roy discloses a method and apparatus for increasing capacity and improving the quality of wireless communication networks.

By using location information and an appropriately designed transmitter array, information for different network users is simultaneously transmitted on a common channel. Source location estimation and spatial demultiplexing of multiple signals in the same channel is how Roy achieves the aforementioned improvements (see Para. 20). More specifically, estimates of locations and velocities of mobile units in a given coverage area (or cell) are used to improve hand-off strategies (see Para. 26). By utilizing this location/velocity information of an intended receiver, a base station transmitter is designed so as to transmit the intended signal essentially only in the direction of said intended receiver (see Para 28). Accordingly, Applicant takes the position that Roy does not appear to be concerned with or is not considering the actual manipulation of directed energies in the manner claimed. That is, Roy is not teaching that the amount of energy directed in the direction of each terminal (mobile unit) is a function of the location and acceptable receive strengths of at least two of the terminals as claimed in any of Claims 1, 10 or 18. Rather, the energy transmitted towards an intended user in Roy is based solely on its location and velocity without consideration of other factors.

Applicants position is further supported by the fact that. "... signals (68) are sent to multichannel transmitters (70) and subsequently transmitted by an array of antennas to wireless units (10, 22, 24).... by appropriate design of the spatial multiplexer, wireless unit (20) received none of the signal being transmitted to units (22) or (24), and similarly for the other two units" (see Para 53). This teaching is completely inopposite to the subject invention where partial signal strengths of signals transmitted to neighboring units are accounted for and used to assist in the transmission of a signal to another unit (see for example Page 18, line 17 – Page 19, line 2 and the accompanying FIGs 10 and 11). The SDMA of Roy confirms Applicants assessment of the disclosed system. Specifically, "an objective of the SDMA controller (72) is to prevent wireless units from becoming coincident in channel, time and spatial (location) space" (see Para 74). It is Roy's intention to keep a highly defined separation of signals amongst units so that proper hand-off and overall signal quality is maintained. There is absolutely no teaching or suggestion that energies are directed is such a manner that they are a function of locations and acceptable receiving strengths of other terminals as presented in the

subject invention. Since the Applicant has quoted and cited portions of the reference in support of this argument that the Examiner originally cited to formulate the rejection, it is respectfully submitted that the Examiner has not fully appreciated what is being disclosed in Roy in comparison to what is claimed as the differences between the subject invention and cited art is quite distinct.

Furthermore, the Fukagawa reference fails to bridge a substantial gap between Roy and Applicants' invention. Fukugawa is used solely to offer a teaching of azimuth direction radiation. Regardless of whether this teaching is valid, there is still no teaching or suggestion overall in the references of directing energies as a function of locations and acceptable receiving strengths of other terminals. Since the combination of Roy and Fukagawa fails to teach or suggest this advantage or improvement in the art, the combined references fail to teach or suggest Applicants' invention as a whole.

As such, Applicants submit that independent claim 1 is not obvious and fully satisfies the requirements of 35 U.S.C. §103 and is patentable thereunder. Furthermore, independent claims 10 and 18 recite similar limitations as recited in independent claim 1. As such, and for at least the same reasons discussed above, Applicants submit that independent claims 10 and 18 are also not obvious and fully satisfy the requirements of the 35 U.S.C. §103 and are patentable thereunder. Moreover, claims 2-5, 6-7, 9, 11-14, 15-16, 19-20, 22-24 and 25-30 depend directly or indirectly from independent claims 1, 10 and 18 and recite additional limitations thereof. Therefore, for at least the same reasons discussed above, Applicants submit that these dependent claims are also not obvious and fully satisfy the requirements of the 35 U.S.C. §103 and are patentable thereunder. Accordingly, Applicants respectfully request that the Examiner's rejection be withdrawn.

Claim 21

The Examiner has rejected claim 21 under 35 U.S.C. §103(a) as being unpatentable over Roy in view of Fukagawa and further in view of Wong et al. (US 6,330,460, hereinafter "Wong"). Applicants respectfully traverse the rejection.

For at least the reasons discussed above, independent claim 18 is patentable under 35 U.S.C. §103(a) over Roy in view of Fukagawa. Claim 21 depends

indirectly from independent claim 18 and recites additional limitations thereof. As such, for at least the same reasons, dependent claim 21 also is patentable under 35 U.S.C. §103(a) over Roy in view of Fukagawa.

Furthermore, the Wong reference fails to bridge a substantial gap between Roy and Fukagawa and Applicants' invention. In particular, the Examiner offers Wong as allegedly disclosing providing a processor in a transmitter. Regardless of whether this teaching is valid, there is still no teaching or suggestion overall in the references of directing energies as a function of locations and acceptable receiving strengths of other terminals. Accordingly, Applicants respectfully submit that the combined references fail to teach or suggest Applicants' invention as a whole.

As such, Applicants submit that claim 21 is patentable under 35 U.S.C. §103(a) over Roy in view of Fukagawa and further in view of Wong. Therefore, Applicants respectfully request that the Examiner's rejection be withdrawn.

CONCLUSION

Thus, Applicants submit that the pending claims are in condition for allowance. Accordingly, both reconsideration of this application and its swift passage to issue are earnestly solicited.

If, however, the Examiner believes that there are any unresolved issues requiring adverse final action in any of the claims now pending in the application, it is requested that the Examiner telephone Mr. Eamon Wall at (732) 530-9404 so that appropriate arrangements can be made for resolving such issues as expeditiously as possible.

Respectfully submitted,

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